

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME	POSITION TITLE		
Robert Devlin	Chief, Clinical Research Branch		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
University of Texas (El Paso)	B.S.	1969	Biology
University of Virginia	Ph.D.	1976	Molecular Biology

NOTE: The Biographical Sketch may not exceed four pages. Items A and B (together) may not exceed two of the four-page limit. Follow the formats and instructions on the attached sample.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

PROFESSIONAL EXPERIENCE

1979 - 1986 Assistant Professor, Biology Department
Emory University, Atlanta, GA 30322

1986 -1991 Research Scientist, Cell and Molecular Biology Section
Clinical Research Branch, Human Studies Division
US EPA

1986 - Adjunct Professor
Biochemistry Department
University of North Carolina School of Medicine, Chapel Hill, NC 27599

1991 – 1994 Chief, Cell and Molecular Biology Section
Clinical Research Branch, Human Studies Division

1994 - Chief, Clinical Research Branch, Human Studies Division

SELECTED EPA AWARDS AND HONORS

US EPA Level I Scientific and Technological Achievement Award for manuscript entitled "Ozone-induced inflammation in the lower airways of human subjects." (1992)

US EPA Bronze Medal for Commendable Service for Outstanding and Exceptional Scientific Contributions in Completing the Air Quality Criteria Document for Ozone. (1996)

US EPA Level III Scientific and Technological Achievement Award (1999) "Determining that asthmatics are more sensitive to ozone than healthy individuals."

US EPA Level II Scientific and Technological Achievement Award (2000) for "Assessing the effect of ambient air particle concentrations on the cardiopulmonary system of humans."

US EPA Level I Scientific and Technological Achievement Award (2002) for "Outstanding research on the effects of air pollution particles from the Utah Valley on humans and animals."

US EPA Bronze Medal for serving as lead author on the ORD PM Multiyear Plan (2002).

US EPA Gold Medal for exceptional PM Research (2003).

US EPA Bronze Medal for Contributions to the PM Criteria Document (2005)
US EPA Bronze Medal for North Carolina Highway Patrol Trooper Study (2005)
US EPA Level II Scientific and Technological Achievement Award (2004) for “Demonstrating that Exposure to PM Derived from Mobile Sources Causes Cardiovascular Changes in Healthy Young Men.”

COMMITTEES AND CONSULTANT APPOINTMENTS (Selected from a total of 42 in past 10 years):

Member of VA Study Section on Respiration, 1995 - 1997.
Panel Member, IUATLD Workshop on the Health Effects of Air Pollution, Barcelona, 1995.
Co-organizer, 2nd International Symposium on Oxygen Radicals and Cell Damage, Durham, 1997.
Co-organizer, 3rd International Colloquium on Particulate Air Pollution and Human Health, Durham, 1999
Co-Organizer, Workshop on Cardiovascular Effects Associated with Air Pollution, Rochester, 2001
Co-Organizer, NIEHS Workshop on Cardiovascular Effects Associated with PM, RTP, NC, 2002
Co-Organizer, Workshop on Cardiovascular Effects Associated with Air Pollution, Rochester, February 2001
Participant, National Academy of Sciences Workshop on Current Research in PM Health Effects, Seattle, WA, April 2002
Co-Organizer, NIEHS Workshop on Cardiovascular Effects Associated with PM, RTP, NC, Aug. 2002
Panel Member, NIEHS Study Section to Review Program Project Grant, Sept. 2002
Organizing Committee, 4th International Colloquium on Particulate Air Pollution and Human Health, Pittsburg, April 2003
Advisory Committee, 9th International Inhalation Symposium, Hannover, FRG, June 2003
Member, Research Steering Committee, California Air Resources Board, Jan 2003 –
Editorial Board, Particle Toxicology 2003 -
Organizing Committee, EPA PM Centers Directors Meeting, Washington, DC Sept 2004
Participant, Environmental Cardiology Workshop, Louisville, KY October 2004
Participant, Expert Working Group to prepare recommendations from a workshop on the “Experimental Assessment of the Toxicological Effects of Inhaled Complex Mixtures on the Respiratory System”, Barcelona, Spain, April 2005

INVITED LECTURES, SYMPOSIA, WORKGROUPS (Selected from a total of 35 in the past 10 years) :

5th International Inhalation Symposium, Hannover, FRG, February 1995 (Speaker)
American Thoracic Society, Seattle, May 1995 (Session Chair)
British Society of Allergy and Clinical Immunology, Manchester, UK, September 1996 (Speaker)
6th International Inhalation Symposium, Hannover, FRG, February 1997
5th US Dutch International Symposium on Air Pollution in the 21st Century, Noordwijk, Netherlands, April, 1997 (Speaker and Session Chair)
Second International Symposium on Oxygen/Nitrogen Radicals and Cellular Injury, Durham, NC, September 1997 (Co-organizer, session chair, speaker)
American Thoracic Society, Chicago, April 1998 (Session Chair)
7th International Inhalation Symposium, Hannover, FRG, February 1999 (Session Chair and Speaker)
Third International Colloquium on Particulate Air Pollution and Human Health, Durham, June 1999 (Co-organizer, speaker)
Eleventh Conference of the International Society for Environmental Epidemiology, Athens (Greece), September 1999 (Speaker).
International Multidisciplinary Conference on Environmental Medicine, Graz (Austria), September 1999 (Session Chair and Speaker).
Society of Toxicology, Philadelphia, March 2000 (Session Chair and Speaker)

International Symposium on Particle Health Effects, Santiago, Chile, June 2000 (Speaker)
 International Congress on Environmental Health, Hannover, FRG, Oct. 2000 (Session Chair and Speaker)
 International Conference on Environmental and Occupational Respiratory Diseases, Lucknow, India, October 2000 (Session Chair and Speaker)
 International Workshop on Air Pollution Effects in the Elderly, Pisa, Italy, March 2001 (Speaker)
 Society of Toxicology, Nashville, TN March 2001 (Session Chair and Speaker)
 American Thoracic Society, Atlanta, GA May 2002 (Session Chair)
 American Association for Aerosol Research, Charlotte, NC October 2002 (Plenary Speaker)
 4th Colloquium on PM and Human Health, Pittsburgh, PA, April 2003 (Session Chair)
 3rd Hagen-Smitt Symposium, Lake Arrowhead CA, May 2003 (Speaker)
 American Thoracic Society, Seattle, May 2003 (lecturer in postgraduate course)
 8th International Inhalation Symposium, Hannover, FRG, June 2003 (Speaker)
 Cardiovascular and Neurological Effects of Fine and Ultrafine Particles, Munich, FRG August 2004 (Speaker)
 National Gerontological Nursing Association Meeting, Las Vegas, NV October 2004 (Speaker)
 Society of Toxicology, New Orleans, LA March 2005 (invited speaker and Session Chair)
 International Symposium on Experimental Assessment of the Toxicological Effects of Inhaled Complex Mixtures on the Respiratory System, Barcelona, Spain, April 2005 (Speaker)
 Endicott House Symposium on Vehicles and Air Quality, Boston, MA, August 2005 (Speaker)

SELECTED PUBLICATIONS (From a total of 77 in the past 10 years)

- Peden, D.B., W.A. Setzer, and R.B. Devlin. Ozone exposure has both a priming effect on allergen-induced responses as well as an intrinsic inflammatory action in the nasal airways of perennially allergic asthmatics. *Respir and Critical Care Medicine* 1995; 151:1336-45.
- Noah, T.L., F. W. Henderson, M.M. Henry, D.B. Peden, and R.B. Devlin. Nasal lavage cytokines in normal, allergic, and asthmatic school age children. *Amer J Respir Critical Care Med* 1995; 152:1290-1296.
- Devlin, R.B., W.F. McDonnell, S. Becker, M. Madden, M.P., McGee, R. Perez, G. Hatch, D.E. House, and H.S. Koren. Time-dependent changes of inflammatory mediators in the lungs of humans exposed to 0.4 ppm ozone for 2 hours: a comparison of mediators found in bronchoalveolar lavage fluid 1 and 18 hours after exposure. *Toxicol. and Applied Pharmacol.* 1996; 138: 176-85.
- Devlin R.B., L.J. Folinsbee, F. Biscardi, S. Becker, M. Madden, M. Robbins, G. Hatch, and H.S. Koren. Repeated exposure of humans to ozone: II Inflammation and cell damage. *Inhalation Toxicology* 1997; 9:211-235.
- Becker, S., J.M. Soukup, M.I. Gilmour, and R.B. Devlin. Stimulation of human and rat alveolar macrophages by urban air particles: effects on oxidant radical generation and cytokine production. *Toxicol. Applied Pharmacol.* 1997; 141:637-648.
- Carter, J.D., A.Ghio, J.Samet, and R.B. Devlin. Cytokine production by human airway epithelial cells after exposure to an air pollution particle is metal dependent. *Toxicol. and Applied Pharmacol.* 1997; 146:180-188.
- Peden, D.B., B. Boehlecke, D. Horstman, and R.B. Devlin. Prolonged, acute exposure to 0.16 ppm ozone induces eosinophilic airway inflammation in allergic asthmatics. *J. Allergy and Clinical Immunology* 1997; 100:802-808..
- Quay, J.L., W. Reed, J. Samet, and R.B. Devlin. Air pollution particles induce IL-6 gene expression in human airway epithelial cells via NF-KB activation. *Am J of Respir, Cell, and Molec Biol.* 1998; 19:98-106.
- Kennedy, T., A.J. Ghio, W. Reed, J. Samet, J. Zagorski, J. Quay, J. Carter, L. Dailey, J.R. Hoidal, and R.B. Devlin. Copper-dependent inflammation and NF-KB activation by particulate air pollution. *Amer. J. Respir. Cell, and Molec.Biology.* 1998; 19:366-378.
- Ghio A.J., J.C. Carter, J.M. Samet, W. Reed, J. Quay, L.A. Dailey, J.H. Richards, and R.B. Devlin. Metal-dependent expression of ferritin and lactoferrin in cultured respiratory epithelial cells after exposure to oil fly ash. *Amer J Physiol, Lung Cell and Molec Physiol.* 1998; 274:L7289-736.
- Veronisi, B., M. Oortgiesen, L. White, J.C. Carter, and R.B. Devlin. Activation of capsaicin receptors by particulate matter (PM) initiates inflammatory cytokine expression in a human bronchial epithelial cell

- line. *Toxicol and Applied Pharmacol.* 1999; 154:106-115.
- Devlin, R.B., D.P. Horstman, T.R. Gerrity, S. Becker, M.C. Madden, F. Biscardi, G.E. Hatch, and H.S. Koren.* Inflammatory Response in Humans Exposed to 2.0 ppm Nitrogen Dioxide. *Inhalation Toxicology*, 1999; 11:89-109.
- Ghio, A.J., C. Kim, and *R.B. Devlin.* Concentrated ambient air particles induce pulmonary inflammation in healthy human volunteers. *Amer. J. Critical Care Medicine* 2000; 162:981-988
- Wu, W., J.M. Samet, A.J. Ghio, and *R.B. Devlin.* Activation of the EGF receptor signalling pathway in human airway epithelial cells exposed to Utah Valley Particulate Matter, *Am. J. Physiol. (Lung Cell. Mol. Physiol)* 2001; 281:L483-489.
- Ghio, A.J., and *R.B. Devlin.* Inflammatory lung injury after bronchial instillation of air pollution particles. *Amer. J. Respir. Crit. Care Med.* 2001. 164(4):704-8.
- Devlin, R.B., A. J. Ghio, H. Kehrl, G. Sanders, and W. Cascio.* Exposure of Humans to Concentrated Ambient Air Pollution Particles (CAPS) Results in Decreased Heart Rate Variability in Elderly, but not Young Volunteers. 2003. *European Respiratory Journal*, 21:76-80.
- Huang, YT, AJ Ghio, J Stonehuerner, J McGee, JD Carter, SC Grambow, and *RB Devlin.* The role of soluble components in ambient fine particulate-induced changes in human lungs and blood. 2003. *Inhal Toxicol* 15:327-342.
- Riediker, M, RB Devlin, TR Griggs, RC Herbst, PA Bromberg, RW Williams, WE Cascio. Cardiovascular effects in patrol officers are associated with fine particulate matter from brake wear and engine emissions. 2004; *Particle and Fibre Toxicology* 1:2-12.
- Riediker, M., WE Cascio, TR Griggs, MC Herbst, PA Bromberg, L Neas, RW Williams, and *RB Devlin.* Particulate matter exposure in cars is associated with cardiovascular effects in healthy young men. *Amer J Respir Crit Care Med* 2004; 169:934-940.
- Ghio, AJ, A Hall, MA Bassett, WE Cascio, *RB Devlin.* Exposure to concentrated ambient air particles alters hematologic indices in humans. 2003. *Inhal Toxicol*; 15:101-115.
- Huang, YT, AJ Ghio, J Stonehuerner, J McGee, JD Carter, SC Grambow, and *RB Devlin.* The role of soluble components in ambient fine particulate-induced changes in human lungs and blood. 2003. *Inhal Toxicol* 15:327-342.
- Riediker, M., WE Cascio, TR Griggs, MC Herbst, PA Bromberg, L Neas, RW Williams, and *RB Devlin.* Particulate matter exposure in cars is associated with cardiovascular effects in healthy young men. *Amer J Respir Crit Care Med* 2004; 169:934-940.
- Alexis, N, S Becker, PA Bromberg, *RB Devlin,* and DB Peden. Circulating CD11b expression correlates with the neutrophil response and airway mCD14 expression is enhanced following ozone exposure in humans. *Clin Immunol.* 2004;11:126-31.
- Graff, DW, WE Cascio, JA Bracken, *RB Devlin.* Metal particulate matter components affect gene expression and beat frequency of neonatal rat ventricular myocytes. *Environ Health Perspect.* 2004; 112:792-8.
- Becker S, LA Dailey, JM Soukup, SC Grambow, *RB Devlin* and YCT Huang. Seasonal variations in air pollution particle-induced inflammatory mediator release and oxidative stress. *Environ Health Perspective*, 2005; 113(8):1032-8.